

Abstract**Piezoceramic multilayer actuators and a process for their manufacture**

5 During operation, large tensile stresses act on the
insulating region under the base metallisation with
external electrodes on piezoceramic multilayer
actuators. Since this insulating region forms a
homogeneous unit together with the base metallisation
10 and the interconnecting layer, this fails when the
tensile strength of the weakest element is exceeded and
cracks develop. The cracks running unchecked through the
insulating region are very critical, since they reduce
the insulation distance and seriously increase the
15 probability of actuator failure due to flashovers.

According to the invention it is therefore proposed
that, in the inactive region (14), the surface (10) of
the multilayer actuator (1) has a pattern (18) that is
20 produced by erosions (19) interrupting the surface (10),
and that the base metallisation (11) is deposited
exclusively on the surface (10) left by the pattern
(18).

25 (Figure 3)

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